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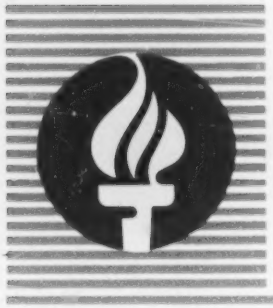

The Conference Board

Safeguarding Intellectual Property

Survey data reveal how 164 growing companies:

- *lobby for protection—at home and abroad*
- *assess dispute mechanisms*
- *use non-disclosure contracts*

Research Report No. 925

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Safeguarding Intellectual Property

by Ronald E. Berenbeim

A Report from The Conference Board

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From the President

Increasingly, companies regard improved safeguards and the harmonization of intellectual property protections as critical to their ability to compete effectively in world markets.

This report assesses how 164 U.S., Canadian, and European companies safeguard their intellectual property and describes the changes that firms would like to see in laws and dispute resolution mechanisms. It also includes an analysis of agreements with employees used to prevent unauthorized use or disclosure of proprietary information.

We are grateful to the executives who responded to our survey and to the many business, industrial, legal, and government experts who shared their insights.

PRESTON TOWNLEY
President

Highlights

Intellectual property protection is a topic of increasing importance to companies that compete in the international marketplace. This report examines different national and cultural approaches to intellectual property protection and efforts to harmonize divergent views. Four case studies illustrate how diverse industries are affected by intellectual property issues and how they work to safeguard their intellectual property rights. This study also documents company initiatives to achieve legal changes and to improve intellectual property enforcement mechanisms, and analyzes employment contracts and policies designed to prevent unauthorized use or disclosure of proprietary data. Based on a survey of 164 U.S., Canadian, and European firms, and on interviews with experts in the United States and United Kingdom this study shows that:

- Surveyed companies are concerned with weak protection and enforcement in virtually every country and region, but the bulk of complaints are directed against those newly industrialized countries that pursue "counterfeiting and imitation as a natural route to modernization." The respondents identified ten countries (Taiwan, Mexico, Korea, Brazil, China, Japan, Indonesia, India, Hong Kong and Spain) that, in their experience, have proved especially reluctant to recognize or to enforce intellectual property rights.
- There are sharply different views on intellectual property safeguards among industrial countries. The "moral rights" protection afforded to continental European copyright owners differs from the more limited economic rights afforded by U.S. law.
- Half of the survey participants (51 percent) are working individually or through interest groups (in most cases, the latter) to influence the intellectual property protection afforded by laws, treaties, or organizations. For actively involved firms, the primary focus is on local laws and enforcement or modifying the General Agreement on Tariffs and Trade (GATT).
- Companies that seek improved safeguards are fairly optimistic regarding their efforts. Key company and industry group initiatives include: (1) variable patent terms; (2) improved U.S. industrial design protection; and (3) domestic safeguards on trade secret use by former employees.

Method

A total of 164 (130 U.S., 5 Canadian, and 29 European) companies responded to The Conference Board's Survey of 1,400 U.S. and Canadian businesses and 200 European firms. The median 1986 sales figure for these participants was $2 billion. Respondents to the questionnaire were top-ranking legal, public affairs, and research and development specialists. (An industry profile of the responding companies appears below.)

Interviews with over 25 company, industry group, and government officials, and lawyers in the United States and United Kingdom provided additional insight and perspective.

Responding Companies
(N=164)

Dominant Business	Number	*Percentage
Manufacturer of:		
Industrial products	63	38
Consumer durables	19	12
Consumer nondurables	40	24
Retail trade	5	3
Financial services	7	4
Construction	1	1
Extractive industry	7	4
Utilities	7	4
Transportation	3	2
Other	12	7

*Because of rounding, percentage does not add up to 100.

- Two-thirds (67%) of the surveyed companies are engaged in the litigation of intellectual property issues. Many respondents expressed dissatisfaction with litigation as a method for resolving intellectual property disputes, but binding arbitration was regarded as preferable by less than a majority (38 percent).
- Two-thirds (67%) of respondents reported using non-competition or non-disclosure contracts that limit the opportunity of key employees to work for competitors or to utilize specific expertise that they have gained from their employment in accepting positions with rival companies or starting their own business. Such contracts are in wide use but are not always enforceable.

Chapter 1

Intellectual Property Systems: The Need to Harmonize Divergent Views

Intellectual property systems, whether regional or national, represent a balance of three competing interests: (1) providing adequate economic incentives and rewards for creative enterprise; (2) preserving the freedom of opportunity to build on and to improve the discoveries of others; and (3) assuring the public that intellectual property protections will not limit consumer access through monopolistic pricing or restrictive distribution practices.

Despite concerns regarding intellectual property infringement in industrialized nations, most complaints are directed against developing countries that oppose stricter international safeguards on the grounds that "counterfeiting and imitation are a natural route to modernization and that [the] economic and technological development of their countries and the chance to increase export earnings are hindered by patent and copyright protection afforded to products of the developed countries."[1] However, the same source notes that countries evolve from infringers to protectors as they develop industries that need to safeguard their independently developed products. Notwithstanding this general proposition, differing views on intellectual property protection in both industrial and developing countries are derived, in significant measure, from German, French and Anglo-American legal traditions. Commenting on the German and French approaches a U.K. patent specialist said:

> "German chemical patent law dates from the 1870s and at the outset it protected processes rather than compounds. The German companies were not very interested in creating new chemicals, their energies were focused on processes to make inorganic products, such as soda, sodium bicarbonate, and dyes. The Germans were working on better processes to make existing chemical entities and improved processes was the greatest area of German innovation. The emphasis of German patent theory on processes had a major influence on Scandinavian countries and Japan.
>
> "The French tradition began somewhat earlier with the passage of patent regulations for pharmaceutical invention that held that medicine and treatment of disease should not be subject to private monopoly. France was very active in promoting its patent theories in the second half of the nineteenth century and influenced the formalization of patent laws in Mediterranean countries such as Spain and Portugal, which in turn, had a similar impact on Latin America."

The U.S. Tradition

Early U.S. attitudes toward intellectual property rights reflected the tension between protection for inventors and access for competitors. Benjamin Franklin, one of America's earliest inventors, emphasized the benefits of limited protections when he refused a patent for his stove: "as we enjoy great Advantages from the Inventions of others, we should be glad of an Opportunity to serve others by any Invention of ours, and this we should do freely and generously."[2]

But Franklin's colleagues in the Constitutional Convention recognized the importance of patents and copyrights and established the earliest formal statement of Anglo-American intellectual property protection in Article I, Section 8 of the Constitution:

> "Congress shall have power to promote the progress of science and useful arts, by securing for limited times to authors and inventors the exclusive right to their respective writing and discoveries."

The evolution of intellectual property law shows how views toward protection evolve in response to economic priorities and cultural attitudes. Early attempts to achieve a consensus among industrialized nations on intellectual property recognized two separate categories that persist to this day: (1) industrial property rights (patents and trademarks) which are the subject of the Paris Convention (1883), and (2) literary property rights (copyrights), which are protected by the Berne Convention for Literary and Artistic Works (1886).

[1] Helena Stalson, *Intellectual Property Rights and U.S. Competitiveness in Trade*, National Planning Association, 1987, p. 32.

[2] Ibid, p. 14.

The U.S. was an early signatory to the Paris Convention (1887), but has only recently subscribed to the Berne Treaty. (March 1, 1989) One sticking point was the Berne emphasis on "moral rights," which recognize that, in addition to economic claims, authors are entitled to protection against unauthorized alteration of their works. With the advent of "colorization" of classic black and white films, moral rights again became a controversial issue in the U.S. Notwithstanding continued reservations in some U.S. industries regarding Berne participation, the advent of new technologies (e.g., computer software) has blurred the century- old distinction between industrial and literary creations, generating support for the U.S. membership. (For international legal protections for software, see Appendix, page 26.)

What are Intellectual Property Rights?

Intellectual property is the ownership rights generated by individual or corporate invention. Most countries recognize and grant varying degrees of protection to four basic intellectual property rights: (1) patents, (2) trademarks, (3) copyrights, and (4) trade secrets. (For characteristics of protective mechanisms in the United States, see Appendix, page 25.)

Patents are grants issued by a national government conferring the right to exclude others from making, using, or selling the invention within the country.[1] Patents may be given for new **products** or **processes**. Violations of patent rights are known as infringement or piracy.

Trademarks are words, names, symbols, devices, or any combination thereof, used by manufacturers or merchants to differentiate their goods and distinguish them from products that are manufactured or sold by others.[2] Counterfeiting and infringement constitute violations of trademark rights.

Copyrights are protections given by a national government to creators of original literary, dramatic, musical, and certain other intellectual works. The owner of a copyright has the exclusive right to reproduce the copyrighted work, prepare derivative works based upon it, distribute copies, and perform or display it publicly.[3] Copyright violations are also known as infringement and piracy. In 1984, the U.S. Congress created a new category of copyright protection for semiconductor chips and the templates used in making them (chip masks).

Trade Secrets are information such as formulas, patterns, compilations, programs, devices, methods, techniques, or processes that derive independent economic value from not being generally known and which cannot be ascertained by unauthorized persons through proper means because they are subject to reasonable efforts to maintain their secrecy.[4] Trade secret violations are known as misappropriation and result from improper acquisition or disclosure.[5] Distinguishing between trade secret safeguards and patent or copyright protection can be difficult. The key elements in a trade secret are the owner's maintenance of confidentiality, limited distribution, and the absence of a patent. (See Exhibit 1.)

1. Based on 35 U.S.C. 154.
2. Based on 14 U.S.C. 1127.
3. See 17 U.S.C. 102 and 17 U.S.C. 106.
4. See Uniform Trade Secrets Act, Section 1 (4).
5. See Uniform Trade Secrets Act, Section 1 (2).

The Push toward Worldwide Standards

There is an emerging consensus in advanced industrial countries concerning the need to develop worldwide standards of intellectual property protection. Such safeguards are increasingly important because of high product development costs; the ease with which inventions or original works can be copied or imitated; the accelerated pace of invention; new forms of intellectual property, (e.g., computers, biotechnology); and the ability of a few countries to inflict large losses on important industries.[3]

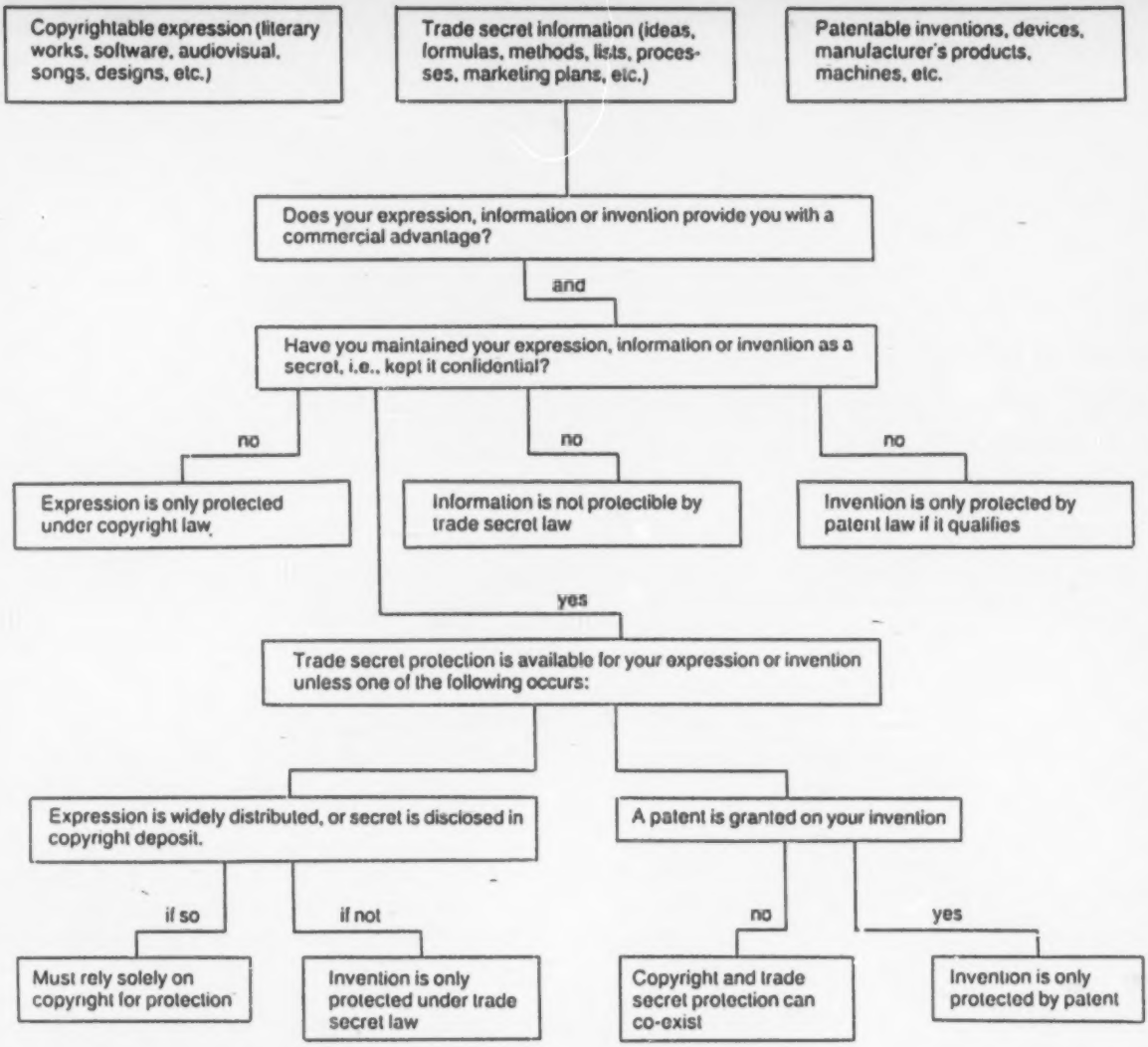
In June 1988, a joint statement on intellectual property protection was issued by the European, Japanese, and U.S. business communities represented by UNICE (Union of Industrial and Employers' Confederation of Europe), Keidanren (Japan), and the Intellectual Property Committee (U.S.) The position paper calls for an important place for intellectual property issues in current GATT (General Agreement on Tariffs and Trade) negotiations (Uruguay Round). The groups' negotiating objectives include the approval of a code that would provide: (1) effective, equitable, and nondiscriminatory enforcement of intellectual property rights; (2) dispute settlement procedures to ensure that the domestic laws of GATT signatories include basic intellectual property protections and enforcement procedures; and (3) preferential trade treatment for signatories to encourage adherence to GATT intellectual property protection standards.[4] Documenting the need to adopt these principles, the group estimates that it takes an average of ten years and $125-$160 million to bring a pharmaceutical product based on a new chemical entity to market. Yet once the drug is available, it is easily duplicated and produced in sufficient quantity to make it unprofitable for legitimate producers.[5] Other illustrations of inadequate protection involve computer products, and records and tapes. The groups point out that a new fa-

[1] A House Energy and Commerce investigating subcommittee identified eleven countries as the "major sources of commercial counterfeiting." (Taiwan, South Korea, Hong Kong, Singapore, Thailand, the Philippines, Indonesia, Brazil, Columbia, Mexico, and Nigeria). *Subcommittee on Oversight and Investigations, House Committee on Energy and Commerce, Unfair Foreign Trade Practices*, p. 4 (Cited in Timothy Atkeson, *International Protection of U.S. International Property*, Southwestern Legal Foundation, Dallas Texas, June 20, 1985.)

[4] *Basic Framework of GATT Provisions on Intellectual Property: Statement of Views of the European, Japanese and United States Business Communities*, The Intellectual Property Committee (U.S.A.), Keidanren (Japan), UNICE (Europe), June 1988, p. 9.

[5] Ibid., p. 9.

Exhibit 1: Trade Secret compared with other Intellectual Property Protections


Copyrightable expression (literary works, software, audiovisual, songs, designs, etc.)
Trade secret information (ideas, formulas, methods, lists, processes, marketing plans, etc.)
Patentable inventions, devices, manufacturer's products, machines, etc.
Does your expression, information or invention provide you with a commercial advantage?
and
Have you maintained your expression, information or invention as a secret, i.e., kept it confidential?
no
Expression is only protected under copyright law
no
Information is not protectible by trade secret law
no
Invention is only protected by patent law if it qualifies
yes
Trade secret protection is available for your expression or invention unless one of the following occurs:
Expression is widely distributed, or secret is disclosed in copyright deposit.
if so
Must rely solely on copyright for protection
if not
Invention is only protected under trade secret law
A patent is granted on your invention
no
Copyright and trade secret protection can co-exist
yes
Invention is only protected by patent

Source: *Nolo's Intellectual Property Law Dictionary*, by Stephen R. Elias, San Francisco, 1985.

mily of semiconductor integrated circuits costs roughly $100 million to design but can be copied for less than $1 million. They also claim that an estimated 25 percent of the two billion records and tapes sold annually worldwide are counterfeit, with prices in some countries as low as twenty-five percent of the legitimate price. Also cited as an example of weak protection is the availability of a popular $500 U.S. software package sold for $7.50.[6]

[6]Ibid., p. 13.

Chapter 2

Company Efforts to Influence Intellectual Property Protection

Half (51%) of the participating companies say that they are working individually, or through interest groups to influence the intellectual property protection afforded by certain laws, treaties, or organizations. To get a sense of the respondents' priorities in this regard, they were asked about their efforts to increase, maintain, or decrease intellectual property safeguards in home country or local laws and bilateral agreements. In addition, they were also questioned about their interest in the following organizations and treaties:

(1) *General Agreement on Tariffs and Trade (GATT)*: An international organization established to enforce certain tariff and trade rules, originally signed in 1947 by 23 countries, including the United States. The current membership of 96 countries seeks a relaxation of trade barriers through implementation of three basic principles: (1) equal, nondiscriminatory treatment for all trading nations; (2) reduction of tariffs by negotiations; and (3) elimination of import quotas.[1]

(2) *Berne Convention*: An international treaty that provides reciprocal copyright protection in each of the 75 signatory countries. Until recently, the U.S., Iceland and the Soviet Union were the only developed countries that were not members of the Berne Convention. Effective March 1, 1989 the U.S. will be a party to The Berne Convention.[2]

(3) *Paris Convention*: The primary treaty for the protection of industrial property (patents, trademarks, service marks, trade names, utility models, industrial designs, and the "repression of unfair competition.") Established in 1883, the Paris Convention is the oldest of the international intellectual property bodies and it secured early participation from most industrialized countries. (The U.S. joined in 1887.) A more recent signatory is the Soviet Union which endorsed the Paris Convention in 1968. The current membership of 91 includes 51 developing countries. From its inception, the Paris Convention has been based on reciprocity: (1) The same protections in member states as that state grants to its own nationals, and (2) equal access for foreigners to local courts to pursue infringement remedies.[3]

(4) *World Intellectual Property Organization (WIPO)*: This organization was formed to facilitate international agreements regulating intellectual property. WIPO's membership consists of most European countries, Japan, and the United States. WIPO is a policy-making body only, with no delegated authority to make binding decisions or to impose sanctions.[4]

(5) *European Community (EC)*: This organization includes most Western European countries. The Member nations have ceded certain authority to the EC to regulate (among other matters) commerce in intellectual and industrial property.[5]

The respondents seek to influence intellectual property protection primarily through industry—or issue-oriented groups; only a handful work on issues individually. A group patent specialist with a major U.K. chemical company explained his firm's preference for working with industry organizations: "We really don't have the energy to send high-powered delegations to Brazil or Costa Rica or any other specific country to advocate our position on intellectual property issues. We are most interested in improvements in the laws of newly industrialized countries where we recognize that there are certain problems. We think that GATT is currently the major forum for addressing intellectual property issues in these areas, and the best way to make our views known in GATT is to get the business community mobilized to participate in GATT discussions."

[1]McGraw-Hill *Dictionary of Modern Economics*, Third Edition, 1983.
[2]Helena Stalson, *Intellectual Property Rights and U.S. Competitiveness in Trade*, National Planning Association, 1987, pp. 25-6.
[3]Ibid., pp. 20-25.
[4]*Nolo's Intellectual Property Law Dictionary* by Stephen R. Elias, Edited by Ralph Warner, Nolo Press, San Francisco; 1985, 222 pp.
[5]Ibid.

More survey respc dents are working for changes in GATT as a vehicle for addressing intellectual property issues outside their home country (59 firms) than any other treaty or convention, and it ranked second in participation to home country laws (66) (See Table 1.)

Nearly all surveyed companies are working to increase or at least to maintain intellectual property protections. Only a small number (6) say that their efforts are designed to reduce safeguards. The exception to this is the Paris Convention where nearly as many companies are working to maintain current levels (23) as seek to raise them (30).

Those companies that are active in pursuing intellectual property issues say that home and foreign country laws, GATT, and the Paris Convention have the highest priority and they are fairly optimistic regarding the outcome of their efforts (Table 2). Respondents are especially hopeful about the prospect for desired change in home country laws; 25 think success is likely.

Table 1: Profile of Companies Working to Influence Intellectual Property Safeguards

		Company is Working to:		
Treaty, Law or Convention	*Number of Companies*	*Increase Protection Number*	*Maintain Protection Number*	*Decrease Protection Number*
GATT	59	49	8	2
Berne Convention	33	24	9	–
Paris Convention	53	30	23	–
WIPO	52	37	14	1
EC	46	35	11	–
Bilateral agreements	39	32	5	2
Home country laws	66	58	8	–
Foreign laws	48	44	3	1

Table 2: Company Priority of Efforts to Influence Protections in Individual Laws, Treaties, Conventions and Estimated Probability of Success

		Success is		
Laws, Treaty, Convention	*Number of Companies*	*Likely Number*	*Possible Number*	*Unlikely Number*
GATT				
High Priority	34	12	21	1
Moderate Importance	17	3	11	3
Berne Convention				
High Priority	13	5	7	1
Moderate Importance	14	4	10	–
Paris Convention				
High Priority	21	10	9	2
Moderate Importance	24	3	17	4
WIPO				
High Priority	15	7	8	–
Moderate Importance	29	3	20	6
EC				
High Priority	16	8	7	1
Moderate Importance	26	9	16	1
Bilateral Agreements				
High Priority	19	10	9	–
Moderate Importance	15	3	11	1
Home Country Laws				
High Priority	49	25	24	–
Moderate Importance	20	9	10	1
Foreign Country Laws				
High Priority	27	7	19	1
Moderate Importance	26	5	17	4

Key Issues in Intellectual Property

Survey and interview participants reported on the key issues they were pursuing with home and foreign governments and with the major international organizations identified in the survey. Companies were also asked to identify specific countries or regions that should be the focus of bilateral or multilateral efforts to improve intellectual property safeguards.

The U.S. and European firms studied are using three different approaches to improve specific protections for their patents, trademarks, copyrights, and trade secrets: (1) strengthening domestic legal safeguards; (2) obtaining adherence of their home country to international conventions or accords; and (3) achieving improved protection from international conventions and accords through more active involvement of home country trade policy and industry groups.

Listed below are the key issues in (1) patents, (2) copyrights, (3) trademarks, and (4) trade secrets. Three of the objectives, improved U.S. process patent legislation, U.S. adoption of "intent to use" trademark rules, and U.S. ratification of the Berne Convention, were achieved in 1988.

Patents

(1) *U.S. process patent protection legislation*: In the first half of 1988, when The Conference Board survey was conducted, many U.S. respondents agreed that the major patent concern of U.S. businesses was "to achieve passage of process protection legislation that will treat the importation of goods manufactured outside the U.S. with a process that is covered by a U.S. patent as infringement." Under conditions in effect at that time, U.S. process patent protection could be easily evaded by using the process-patented technology outside the U.S. and importing the finished goods manufactured by the process. This practice was an infringement of the process patent in the U.K., West Germany, France, and Japan, as well as in most other industrialized countries. Improved process patent protection was achieved in the Process Patent Amendments contained in the Omnibus Trade and Competitiveness Act of 1988.

The new law treats unlicensed importers, distributors, retailers, and even consumers of standard products as patent infringers, if an unpatented product was produced by a U.S. patented process. The Act applies to foreign and domestic manufacture and also to end products made from intermediate products that are protected by U.S. process patents.[6] (For further discussion of the Intellectual Property section of the 1988 Trade bill, see Chapter 5.)

(2) *U.S. adoption of "first to file" rule for patent claims*: To harmonize U.S. patent laws with the patent systems of most industrial nations, some of those surveyed said they would like the United States to convert from a "first to invent" principle to the more widely used "first to file": But this view was not unanimous. One company spokesman argued that U.S. protections should not be harmonized with foreign safeguards: "We should stop making concessions to foreign practice in order to achieve trade goals and not make changes in our patent laws. We should retain the first to invent concept and forget about the first to file rule that is used elsewhere."

(3) *Variable patent terms*: A U.K. chemical company's patent specialist addressed the need to improve protection for biotechnology and efforts to consider "the eternal patent." He noted that there was a lively interest in variable patent terms in Europe because "in a perfect world you could use the patent term as an instrument of economic policy and give longer or shorter patent periods to industries that you wish to encourage or discourage. Our friends in the pharmaceutical and agrichemical industry are particularly interested in the longer term." A German chemical company agreed with the priority for improvement in biotechnology patent protection and American firms echoed this view. One U.S. company specifically recommended that "the U.S. should increase the life of patents on substances that are registered under the Federal Insecticide, Fungicide and Rodenticide Act."

Trademarks

(1) *Change in U.S. trademark registration requirements to "proposed use"*: Several U.S. companies sought a change in trademark procedure from the then current practice requiring trademark use by a prospective owner to register a trademark to a procedure based on "intent to use." The Trademark Law Revision Act ("TMLRA") enacted October 20, 1988 allows an owner to "reserve" a mark by filing an application that states a "bona fide intent to use" the mark. If there is no opposition following publication of the mark by the Patent and Trade Office, the Office will "allow" the mark for up to six months. The applicant can then register the mark by filing a verified statement that it has been used in commerce during that period. The reservation of the mark may be extended up to 24 additional months upon a showing of "good cause."[7]

(2) *U.S. should participate in an international treaty organization that provides trademark protection to signatory countries*: One company recommended the the U.S. sign the Madrid Agreement on International Registration of Trademarks. Other firms did not specify which body the United States should use to protect U.S. trademarks, but they recommended increased participation in international organizations.

[6]For a discussion of the process patent section of the Act, see Salem M. Katsh, "Trade Bill Enhances Rights of Process Patent Owners", *The Journal of Proprietary Rights*, December 1988, pp. 3-11.

[7]For a discussion of "TMLRA", see *Journal of Proprietary Rights*, December, 1988, p. 34.

Copyright

(1) *U.S. accession to the Berne Convention (1886) for the Protection of Literary and Artistic Work*: U.S. survey participants achieved a major copyright objective with the passage in late 1988 of the Berne Convention Implementation Act of 1988. Effective March 1, 1989 the U.S. will join the Berne Convention.

The convention is one of the oldest of the multinational intellectual property accords. Although its policies are determined by member nations, the convention is actually administered by the World International Property Organization. U.S. unwillingness to participate in Berne was consistent with its historic reluctance to adopt international copyright safeguards. The United States first accorded protection to foreign copyrights in 1891 with the passage of the Chace Act, which establishes a framework for bilateral agreements based on reciprocity. The United States did not become a member of an international copyright organization until 1952 when it signed the Universal Copyright Convention. (This convention is administered by the United Nations Educational, Scientific and Cultural Organization (UNESCO).)

One of the chief sticking points in U.S. endorsement of the Berne Agreement was its adoption of a "moral rights" clause in 1928. The "moral rights" principle is a continental legal concept that recognizes "an author's interest in the 'personality' of the work." Traditionally, Anglo-American law has focused on economic and property rights and has afforded authors little protection against the distortion of their work.

Moral rights was again an issue in the recent debate over participation in the Berne Convention. Because of the moral rights controversy, the enabling legislation states that current copyright protections "shall not be expanded or reduced by virtue of, or in reliance upon, the provisions of the Berne Convention, or the adherence of the United States thereto."[8] This language states, in effect, that current U.S. copyright protections satisfy minimal Berne requirements, and that further enhancement of moral rights should result from separate legislation.

The narrower Anglo-American view of copyright protection is changing—the U.K. Parliament is considering a moral rights clause. California, New York, and Massachusetts have recently adopted moral rights legislation.

(2) *Revision of Berne Convention*: WIPO and UNESCO, are now meeting to discuss revisions to the Berne accord. A U.S. attorney who has attended these sessions says that as a practical matter revision "is not possible until the U.S. has approved Berne and adhered to it for some time. These meetings are a substitute for a diplomatic effort to revise the Berne Convention and will promulgate non-binding model laws that participating countries can use in the interim until the Berne Convention is revised. The model law's provisions will aid national authorities and legislators when they have to deal with copyright and 'neighboring rights' issues." ("Neighboring rights" is an Anglo-American legal term that is used to describe rights that are "neighboring" to traditional copyright protections for literary and artistic works, such as safeguards for broadcasts and typographical arrangements of published editions.)

The joint WIPO-UNESCO meetings have developed basic principles for subjects such as audiovisuals, architecture, printed materials, drama and choreography, applied art, photographs, storage in and retrieval from computer systems of protected works, electronic publishing and libraries, and data bases.

With respect to audiovisual works, for example, the principles offer guidance for problems such as piracy, home taping, satellite broadcasting, and cable distribution of programs transmitted by fixed service satellites. Eventually, these guidelines will be used by WIPO in drafting its nonbinding provisions for national copyright laws.

(3) *U.S. Industrial Design Protection*: Distinctive designs of utilitarian articles (e.g., radios, computer terminals, eyeglasses, etc.) obtain limited protection from U.S. patent law; but the attractiveness of a product's design is often a key component in its popularity and a source of competitive advantage in the marketplace.

Although, for example, the U.S. issued approximately 3,000 design patents in 1983, industrial design is not generally deemed a suitable subject for U.S. patent protection because the patent "idea" must be "unobvious" and the design of a functional object is usually related to its use. For example, an "unobvious" design for eyeglasses would probably be of little value to the consumer. (Compared to other countries, the 1983 U.S. grant of 3000 industrial design patents covers a relatively small number of products. During that year Japan afforded protection to more than 31,000 designs, Germany 61,000, and France 11,500.)[9]

Representatives of the automobile insurance industry, with support from the National Association of Insurance Commissioners, have argued that design protection legislation should exclude "crash parts." (Metal, plastic and glass components such as fenders, hoods, doors and windshields, that are used in repairing damaged automobiles.) They say that competition in the crash parts industry resulted in a *drop* in the price of crash parts in 1984 and 1985 and that "tests have found that some imported competitive parts are *superior* to the original equipment parts."[10]

[8] 17 U.S.C. 6 104 (c) (as amended).

[9] "Issue Brief: A public policy summary," National Association of Manufacturers, March, 1987.

[10] Statement of Jean C. Hiestand, Vice President and General Counsel, State Farm Mutual Automobile Insurance Company on S. 791, Industrial Design Protection before the Subcommittee on Patents, Copyrights and Trademarks of the Senate Committee on the Judiciary 100th Congress, 1st Session, March 26, 1987. For a British view see *British Leyland Motor Corp. v. Armstrong Patents Co.* (1986)

To avoid the rigorous "unobvious" test for patent design protection, Representative Carlos Morehead (Republican-California) introduced a bill in the 100th Congress that would have amended Title 17 of the U.S. Code (covering copyrights which protect "ideas") to provide 10 years of copyright protection for ornamental designs of useful articles. The bill did not pass. On February 7, 1989, Representative Morehead introduced industrial design protection legislation in the 101st Congress. The proposal differed from prior initiatives in that it extends protection to typeface designs.

Trade Secrets

(1) *Domestic safeguards for trade secret use by former employees*: The potential appropriation of proprietary data by current or former employees is the key trade secret issue for survey participants. Roughly two-thirds (68%) of the survey respondents say that they have a non-competition or non-disclosure contract with key employees, (see pages 16-17 for detailed description and discussion). A patent counsel for a U.S. high-tech firm that uses such agreements described the problem: "We market 'niche' products and we have, in most cases, only a few competitors. So there is a major risk when an employee leaves. And obviously, some of them are going to leave and take sensitive information with them. If these people pass the information on to the new company and they patent the technology, we are in big trouble."

Problems can arise even when the former employee and the new company act in good faith, as in the following hypothetical situation: "Assume that the person does not intentionally leak your information," the patent counsel says, "but comes forward with an improvement. When the company's patent attorneys investigate to determine their company's claim to the new invention, they will make that claim as broad as they can, and if they don't find a prior publication of the earlier work, they will say that their patent covers material developed by the prior trade secret owner. And there could be many reasons why the company has not patented the information. They might be concerned about the patent period, and decide to wait so that they enjoy a longer period of patent protection when they are actually in the market."

Security issues are not limited to employees who leave a company to accept positions with other organizations. They can also arise when a company hires a key executive from another firm: "People have come to work for us and others have sued the company for what they allege to be trade secret violations."

Companies want guidelines that protect their trade secrets that do not unduly restrict their opportunities to hire experienced personnel who may have incidentally acquired sensitive information while working for a competitor. The patent counsel concluded that "the law needs to provide a balance so that employees are not slaves and can use generalized information, but it is very important to business to have protection for trade secrets."

Countries that do not Recognize or Enforce Intellectual Property Rights

In addition to noting domestic laws and multinational conventions that their companies were seeking to influence, the survey respondents were asked to identify specific countries that are reluctant to *recognize* or *enforce* intellectual property rights (Table 3).

The ten countries identified by survey participants as reluctant to recognize or to enforce intellectual property rights were also among the fourteen countries cited by an International Trade Commission (ITC) study as having caused more than $100 million in losses in 1986 to 168 U.S. companies as a result of inadequate protection. Five countries on The Conference Board list (Taiwan, Mexico, Korea, Brazil, and China) were the top five in in the ITC listing; five others, India, Japan, Hong Kong, Indonesia and Spain ranked seventh, eighth, tenth, twelfth and fourteenth (Table 4). In addition, Saudi Arabia, also on the ITC list, is mentioned by Conference Board respondents as a country where specific changes in safeguards were being sought (see box, p. 10).

One of the authors of the ITC report noted that rankings of problem countries can change quickly when a country enacts new laws: "For example, in 1986 Taiwan generated the most complaints, but today I don't think that they would be number one, two, or three. Korea might be number one, but when they start enforcing their new laws, they will drop. Singapore, for example, used to be a big target for the record and tape people, but now they feel that they have virtually wiped out piracy in Singapore. In Taiwan we are already seeing better enforcement. Counterfeiters used to be allowed to buy their way out of jail sentences that were for less than six months by paying roughly 75 cents for each day. Now they are going to jail."

Negotiating Strategies for Improving Intellectual Property Protections: Linkage vs. Exclusivity

Should negotiations on intellectual property issues be linked to the resolution of other trade issues? Is there a danger that intellectual property problems will be deferred if bilateral talks do not focus exclusively on them? A majority of those surveyed (56%) favor exclusivity. The spokesman for a Canadian chemical company summarized this view: "It is likely that negotiators will be more knowledgeable and professional in intellectual property problems and there is less danger of concessions on intellectual property issues [in order] to resolve other trade differences."

Companies that support linkage point out that while intellectual property issues might be deferred if linked to other trade issues, there is a greater risk that, absent linkage, they will not be addressed at all. A U.S. manufacturing company noted that the fall of the dollar against other currencies gives the U.S. an opportunity to raise intellectual property and other trade issues that might otherwise be ignored because "pressure is on foreign governments to maintain a favorable

Table 3: Countries Reluctant to Recognize or Enforce Intellectual Property Rights (164 companies responding)

Type of Protection	*Countries That Do Not Recognize Intellectual Property Rights*	**Number*	*Countries That Recognize But Do Not Enforce Intellectual Property Rights*	*Number*
Patents	Brazil	16	Brazil	13
	Mexico	11	Korea	13
	Indonesia	9	Japan	12
			India	7
			Mexico	7
			Spain	5
Trademarks	India	4	Mexico	16
			Taiwan	12
			Korea	10
			Brazil	8
			India	7
			Indonesia	5
			Hong Kong	4
Copyright	China	6	Korea	10
	Brazil	4	Taiwan	7
	Korea	4		
Trade Secrets	Brazil	8	Brazil	6
	Mexico	7	Taiwan	6
			Korea	5
			Japan	4

*Limited to countries that were mentioned at least four times.

Table 4: Fourteen Countries where 1986 Reported Losses from Intellectual Property Protection Inadequacies Exceeded $100 Million (168 U.S. Companies)

Country	*Number of Firms Reporting Losses*	*Estimated Losses Reported (In thousands of U.S. dollars)*
Taiwan	49	$752,501
Mexico	41	533,435
Korea	53	496,090
Brazil	48	426,285
China	18	420,250
Canada	11	367,080
India	27	244,020
Japan	37	191,514
Nigeria	9	157,500
Hong Kong	13	153,725
Saudi Arabia	7	130,520
Indonesia	18	130,031
Italy	13	110,150
Spain	14	103,428

*Source: International Trade Commission

Changes Sought by Surveyed Companies Regarding Intellectual Property Protections of In Select Countries

Country	Change Sought
China	Obtain China's participation in copyright convention.
India	Expand categories of patentable subject matter.
Indonesia	Enact patent and trademark laws.
Japan	Expedite examination of patent applications. Enact standards of patentability that are consistent with those of other nations.
Korea	General improvement in intellectual property safeguards.
Mexico	Expand patentable subject matter.
Saudi Arabia	Enact patent and trademark laws.
Spain	Adherence to EC commitments. Achieve product patent protection under new Spanish patent law for products invented after 1992.
Taiwan	General improvement in intellectual property safeguards linked to overall trade quotas for maximum impact.

balance of trade." A Swiss consumer company noted that exclusivity is an appropriate strategy for achieving certain objectives, but not for others: "Negotiations focused *exclusively* on intellectual property problems may influence change in *laws*, but they are not effective in enforcing *rights*." A U.S. manufacturer pointed out that there is already a sufficient independent need for harmonization of certain intellectual property rights to render linkage unnecessary: "Existing conflicts between national patent laws are an incentive for harmonization (e.g., first to file vs. first to invent principles). There is no need to include other trade issues."

Company spokesman recommend a two-track approach in dealing with individual countries or regions. They say that U.S. trade policy should seek to strengthen the basic requirements of international accords while pursuing bilateral talks with problem countries. The spokesman for a U.S. concern put it this way: "The U.S. government should lead the movement to amend GATT provisions by including therein a code of intellectual property rights that provides for minimum standards of enforcement and protection; but the government should also continue bilateral efforts (e.g., in South Korea) to ensure adequate protection of intellectual property rights." Survey and interview comments suggest a variety of issues that companies would like to see their country or the EC explore with individual countries. In some instances, the respondents are seeking general acceptance of widely held intellectual property principles, in other cases they want changes in specific laws or policies (see box above).

Chapter 3
Safeguarding Intellectual Property: Four Examples

To better understand how companies safeguard intellectual property, firms in the U.S. and U.K. were asked how they handled specific intellectual property issues.

A U.S. Pharmaceutical Company: When to File for a Patent

Commenting on his company's policy for patent filing, a patent counsel said, "people in the research area don't like to spend money unless they think that they're going to have an exclusive position when the product is released." But achieving this protection for pharmaceuticals may require a company to file earlier than would otherwise be considered optimum because, as this individual continued, "there is a constant tension in the [pharmaceutical] industry between the scientific urge to publicize great ideas and the legal necessity to protect them. Once you have something interesting, from a scientific standpoint, people don't like to keep that light under a basket. You are forced in some instances to make filing decisions based on incomplete data. And implementing such decisions costs a lot of money."

According to the patent counsel, this company seeks patent approval when it has "a new *chemical entity* (a newly synthesized molecular structure, i.e., a unique man-made structure prepared by chemicals or, as is increasingly the case, biological means) and there is convincing evidence that it has a *utility* in a *specific indication* that is worth pursuing."

If the company has a patent on a chemical entity it has, in effect, *product* coverage since it can prevent another firm from copying it, regardless of how the entity is manufactured. A lesser, but useful protection, is to patent a composition or formulation containing the entity. For example, scientists might identify a unique compound but find that, in trying to isolate the material, it is unstable. Perhaps the molecule splits when ingested or does not survive long enough to be actively identified. In such cases, they will seek patent protection for a formulation containing the entity.

The patent lawyer for this pharmaceutical firm found formulation safeguards to be helpful but describes them as a "vaguer concept that gives you far less complete protection. Other companies can devise another formulation that is distinguishable and does not fall within the scope of your claims. But if the chemical entity is protected, a [competitor's] novel formulation might still infringe the patent."

Utility in a *specific indication* means that there is clinical in vitro data of a beneficial effect and at least some animal testing that supports the in vitro findings of potential use. Reliance on these early findings, as a basis for the decision to apply for patents, is necessary because "communications between research groups is much more open than twenty years ago and we are afraid of being scooped," noted the patent lawyer. As a result of such concerns, the company is seeking patents at an early point in the research and development chain. The lawyer estimated that, typically, it takes one two years to get a patent approved, but that the compound does not reach the market for another six to ten years.

In this pharmaceutical company's experience, the need for early patent applications has an impact on: (1) development costs and profits, (2) testing procedures, and (3) the research environment.

(1) *Development costs and profits*: Patent applications can be costly and time consuming. Going forward with them, on the basis of tentative data, can result in wasted effort. But the more significant economic impact may be that as a result of testing and development, the company enjoys a shorter period of exclusive use when the product eventually reaches the market.

New pharmaceuticals have high development costs. To recoup these expenses, this company markets its products worldwide and, as its manager of international patent operations explains, "very often you are in the foreign markets first." He estimates that at least a quarter of the pharmaceutical world market does not afford adequate protection for the company's patents and cites South America, Eastern Europe, and China as areas with the most serious problems. Even in Western Europe where patent protection is a well-established principle, chemical process safeguards can be difficult to enforce, and he cited Norway and Finland as jurisdictions where "evidentiary standards make it very hard to prove that a process patent has been infringed."

It is also more difficult to extend the life of a pharmaceutical patent in Europe. In the United States the "patent lock" can be extended for up to five years "as long as the total period of patent exclusivity does not exceed fourteen years as a result of the extension." Although there is an initiative in the European Community to allow a similar procedure, such a move will require, according to the firm's manager of international patent operations, "the consent of nine or 11 member states."

(2) *Testing procedures*: Seeking patent approval is expensive, and, according to the patent attorney, "We would like to have a bit more time for more animal studies or phase I chemical tests to see the effects on people before we go ahead."

The stepped-up filing timetable determines, to some degree, the kinds of tests that will be used to determine utility in a specific indication. As this attorney points out, "there are a whole sequence of acceptable tests (e.g., immersion in isolated tissues) that point to the likelihood of the compound having activity in an animal. Ideally, you would like to avoid animal testing and use these other methods, but that is not the reality of current testing requirements. If this kind of procedure were possible, it would speed up the process and avoid animal rights issues."

(3) *Research environment*: Does the rush for early protection create a more difficult environment for making new discoveries? "To a certain extent," the attorney says, "but remember, you are filing patent applications early to protect the inventions as they come along. Because of early filings, there could actually be *more* disclosure and discussion. Scientists will say, 'I can talk because the patent application has been filed.' When other people get that information, they may be able to take the next step or pursue different alternatives more quickly than your own company."

A U.S. Oil Company: Trademark Infringement at the Pump

Bulk purchasing of "unpackaged" lubricant is a common practice in the oil industry. The oil is bought in tanks, packaged in drums, and resold. But, as the trademark counsel for a major U.S. oil company commented:

"The repackaging of bulk products alters the nature and character of the goods. It can result in contamination, adulteration, substitution, and other kinds of problems."

Regular users of both packaged and repackaged goods are aware that although packaged oil is more expensive and there is a deposit on the drums, the higher cost is justified because the manufacturer is responsible for adulteration or contamination of the product. Purchase of repackaged goods requires considerable sophistication in testing delivered products and in using filters to protect against equipment damage. But many consumers are unaware of the real meaning of the words "repackaged from bulk."

The typical bulk purchaser buys oil from the company or a distributor and then resells the oil to major consumers (e.g., trucking companies), But many users of large quantities of oil prefer to avoid the risk described above by purchasing packaged goods. In the case under discussion, a bulk purchaser was reselling the oil as a packaged product bearing the company's trademark.

Recalling the incident, the trademark counsel said, "I wrote the bulk purchaser a letter and said that we did not want our trademark used in this way. He replied that he would discontinue the practice. In the meantime, somebody picked up a barrel of what the bulk purchaser had sold to a customer and it had our product trademarks, but they weren't arranged in the right order. They had mixed and matched the product so that the name appearing on a barrel was not one used for any particular product. The nomenclature was similar to what we used in an earlier period when there were slightly different brand names, but it did not match any of those either. For example, the barrel had our logo, and it used our system of nomenclature, but it had no current company brand name. We did a sample analysis and this time it was not our product."

The company undertook a security investigation and found that approximately twenty-five separate organizations of distributors and barrel suppliers in nine states were involved in the repackaging scheme. The barrels had been reconditioned and painted to resemble company containers. The infringers had bought a few products and thus established a legitimate purchase record as a firm selling genuine products. They also had a used-oil collection subsidiary and a rudimentary process to clean oil so that it was not easily detectable as used. They clarified the oil—without removing contaminants—and then used a barrel packaging and labeling operation to sell the oil through a wholesaling operation to customers who had made earlier purchases of legitimate company oil.

The company turned over all documentation of these activities to the FBI. When the FBI sent an agent to the suspected infringer they learned that the business had been sold to an innocent third party who cooperated fully in the ensuing investigation. Major figures in the operation had left the country. Eventually, they returned and were indicted. One of them pleaded guilty and several others were tried and convicted.

The incident alerted the company to potentially serious trademark infringement problems. According to the trademark counsel, "We made internal changes in operations and we now respond more quickly to suspected infringements. Repackagers who come to our attention get stern letters. Almost every subsequent case has been a relatively innocent problem, but we do have to contact a large number of people every year and remind them of our legal position on these issues."

A U.S. Retailer: Catalogs are Books

The widespread use of mail order catalogs as a sales and marketing tool requires retailers to be vigilant about protect-

ing their copyrights and trademarks. An example of this problem was discussed by two copyright lawyers for a major U.S. retailer. One lawyer recalled, "We found out about the copyright violation from a shareholder who sent us a copy of an obscure specialized catalog. The company used a picture of our product(s) and all of our original copy, but it was an unusually clear violation because they did not bother to change our name to theirs in the advertisement, and I don't think that we would have caught it, if they had not repeated our name."

Other potential copyright violations can be harder to detect. The attorney's colleague recalled a situation that included "visual elements" from an ad for "installed services." The promotion, "showed a workman installing blown in insulation and it was clear that they used our artwork."

Both lawyers say that distinguishing between copyright violations, trademark infringements, and unfair competition can be difficult. They used a hypothetical case to illustrate the differences: Company A manufactures, promotes, and sells a hammer that is known as the Nail Banger. Company B uses a mail order catalog to sell a hammer that resembles the Nail Banger.

(1) Company B has committed a *copyright violation*, if they have used the verbatim text of Company A's catalog or if they have used pictures or layout that copies or strongly resembles Company A's advertising.

(2) Company B has *infringed* Company A's *trademark*, if its advertising uses the words 'nail banger' to describe its product, because the words are a registered trademark.

(3) Company B has engaged in *unfair competition* under Section 43A of the Lanham Act (15 USC Sec. 1125), if the hammer that appears in its catalog is a photograph of Company A's Nail Banger.

It is also possible to sue in Federal Court to stop the use of a mark that is not registered under the Lanham Act if the use of that mark or a similar logo is likely to lead to "consumer confusion." Because the mark is unregistered, however, the plaintiff does not benefit from certain Lanham Act provisions, such as presumption of ownership, constructive notice, treble damages, and incontestability.[1]

Determining whether a copyright violation has occurred can be a matter of subjective judgment. For example, what does a company do when a competitor's catalog replicates the tone or feel of its publication with similar visual images, even though the text is not copied? Reflecting on that question, the copyright lawyer said, "It is an issue of how close the copy or sensibility conveyed actually is, and the determination can be very subjective. For example, Liz Claiborne uses triangles in its advertising. But they obviously don't have a monopoly on the use of triangles. The key question is how much the other copy that may use triangles varies from the way that Claiborne uses them."

Shifting the discussion to a different aspect of copyright law, one of the lawyers noted that there are special problems in the fashion industry because ornamentation is subject to design copyright and clothing often has distinctive ornamentation. "If you sell children's clothing it is probably going to have pictures of animals on it," she said. "How many different ways can you draw a picture of a teddy bear? And we are buying from sources that have teddy bears on nightgowns and T-shirts? Someone else may claim that they used the teddy bear first. So, in the fashion area, I have seen a big increase in the amount of time that I have to spend making sure that we are not violating someone else's copyright. Copyright checks can be very difficult because even if the copyright is registered, there is no mechanism to search for a design. For these reasons, I think that I spend more time on making sure that we are not violating [other firms'] copyrights or infringing trademarks than I do on protecting our own copyright and trademark rights."

A U.S. Defense Contractor: The Competitive Reprocurement and Co-production Problem

U.S. defense contractors have a special set of difficulties in protecting trade secrets because of the Department of Defense's competitive reprocurement and co-production requirements. A supervising patent counsel of a company, that derives forty percent of its revenues from defense contracts, explains how competitive reprocurement works: "The Department of Defense's data rights provision is based on the premise that trade secrets owned and developed by a contractor have to be available to another company, if the government subsequently elects to subject the product to competitive bidding (i.e., competitive reprocurement)."

Regulations governing the use of confidential data are a potential issue in any contractual relationship between a company and a governmental agency. And, as the counsel continued, "the Bureau of the Budget has asked the DOD (Department of Defense) to work toward harmonization of their acquisition procedures with the terms used by other governmental agencies." But data rights remain a problem for defense contractors and the patent attorney said that just the previous day he was asked to review a DOD clause that was "very restrictive."

In fact, the attorney said that the DOD has complied with all the directives (including the patent provision) of the new Federal Acquisition Regulations (FAR) except the data rights provision. The company's only recourse is to depend on its negotiating leverage in each individual situation: "If they get a broad data rights provision in the event of competitive reprocurement, they will come back and demand every bit of data and they will use it, if it suits them."

Competitive reprocurement is not the only danger to the security of a defense contractor's trade secrets. "The government is also pushing all of its major suppliers to have co-production—a second source. With this system, they get a commitment that you will share your technology with a third party. Although they want to approve the agreement between

[1] *Nolo's Intellectual Property Law Dictionary*, p. 110.

you and the other company, they don't object to royalty payments. But they want to force a distribution of your know-how so that they can avoid 'price-gouging.' This arrangement can cause serious problems for small companies that are pursuing 'niche' technologies. Suppose such a company has to transfer that capability to a larger company to meet a co-production requirement? How long would the smaller company survive?"

While competitive reprocurement and co-production conditions are serious concerns, the company has found that the government is a reliable contract party regarding its own use of data: "I think that government employees recognize that when they accept sensitive data they can only use them subject to certain specified limitations, such as evaluation and emergency maintenance purposes. I have never seen a situation where that understanding has been violated."

Chapter 4
Enforcement Methods

Litigation and Arbitration

While half the surveyed companies (51%) are seeking improved safeguards for their intellectual property rights through stronger laws and international accords, two-thirds (67%) are engaged in litigation to protect or defend intellectual property rights under existing law. Participants voiced considerable dissatisfaction with the length of time, costs, procedural inadequacies (notably, liberal discovery rules), and lack of judicial expertise characteristic of this kind of litigation. Nearly two fifths of the respondents (38 percent) say that binding arbitration is preferable to litigation in resolving complex intellectual property disputes.

An attorney who has worked on intellectual property issues explained how discovery (the legal process in which each party is permitted to "discover" the evidence on which the other side bases its case), can frustrate a company's efforts to protect its intellectual property: "We need an entirely different system. The major complication to any intellectual property infringement or license violation suit is that it is very easy for the defendant to counterclaim and to reach trial on an antitrust allegation. If, for example, a company is suing over a copyright license that has a maximum value of $200,000, going to discovery on an antitrust claim destroys the value of that suit because the expenses of discovery can far outweigh the value of the license."

Although many participants expressed similar objections to the use of litigation as a means of resolving intellectual property disputes, arbitration was deemed preferable by participants only for certain kinds of controversies and circumstances.

For example, contractual issues arising out of licensing agreements was the subject most often mentioned as appropriate for arbitration. Some respondents also cited patent infringements, trademark conflicts, and copyright fair use cases as suitable issues for arbitration, but most of the respondents' comments on this topic focused on the *circumstances* rather than the *subject matter.* The participants viewed a mutual interest between the parties as the key factor in the process's ultimate utility. They noted that one or more of the following conditions can be conducive to a common interest in using arbitration:

(1) Arbitration is invoked after a dispute has arisen. The issues are narrow and well defined;
(2) There is not much of a gap between the cost of losing and the reward of winning;
(3) The dispute is multinational and the parties cannot agree on jurisdictional issues; or
(4) Each side cannot afford complex litigation because of expensive expert testimony and costly discovery procedures.

Survey participants favoring arbitration said it offers two distinct advantages—the parties can achieve a higher comfort level with an agreed upon arbitrator's expertise and obtain secrecy as to the outcome. One commentator recommended arbitration as desirable where the company's legal position was weak and there was a wish to avoid a recorded decision. Although a weak legal claim is a compelling rationale for preferring an arbitrated resolution, it might be also be difficult in such situations to induce the other party to agree to arbitration.

Those with negative views on arbitration pointed out that it has most of the drawbacks of litigation, few compensating advantages, and serious limitations in resolving certain kinds of disputes. A U.S. insurer concerned about protecting its service marks noted that most infringement cases do not involve parties with which the company has a contractual relationship. A court can grant a preliminary injunction and a quick trial, while "arbitrators are generally not able or expected to apply the law and could not give us interim relief."

A commonly cited rationale for arbitration is that the informality of the proceedings are more conducive to settlement, but the spokesman for a U.S. chemical company disagreed with this view:

> "The threat of suit and costs attached often force parties to resolve conflicts before going to court. If your company is

the plaintiff, arbitration can result in a less satisfactory outcome because the defendant will view arbitration as less risky than litigation and for this reason will be more reluctant to settle."

Survey comments on arbitration and litigation suggest serious dissatisfaction with both procedures for intellectual property issues. Is there a more satisfactory form of dispute resolution for handling conflicts over intellectual property rights? A lawyer who specializes in intellectual property cautioned that any new system "needs to be sensitive to the social function of the intellectual property system, and as such it would have a dual role in resolving disputes and setting economic policy." He cited the General Services Administration Boards of Contract Appeals for settling issues as to whether there has been adequate competition in the provision of data processing services to the government as a good example of how such tribunals would operate:

> "They [the Boards] make every conceivable accommodation to the need for expedition. There are strong disclosure requirements for the parties, but they are subject to full protection. The hearing officers are relatively aggressive in bringing out both sides of the story and confronting the issues, but they do not give the parties as much scope as a federal judge would allow in letting the adversary process run its course without any affirmative intervention."

Non-Competition and Non-Disclosure Contracts with Key Employees

In addition to governing disputes with competitors over intellectual property rights, legal safeguards can also be an important element in protecting companies from the unauthorized use of their intellectual property by current or former employees. To achieve this goal, two-thirds of the survey participants (68%) rely on an agreement that limits potential employee utilization of proprietary information. The Conference Board obtained 23 sample employer-employee agreements from participating companies and analyzed them. These agreements incorporate one or more of three basic conditions: (1) restrictions on competition by departing employees; (2) definitions of what constitutes property that the company can legally protect from use by others; and (3) requirements that employees (in some instances even after they have left the company) are obligated to cooperate with the employer in efforts to protect its intellectual property (see Exhibits 2 and 3, pages 18-20).

(1) *Restrictions on competition.* Jurisdictions vary widely in the contractual limitations that a court will allow a company to enforce in an action against a current or former employee for breach of a non-disclosure or non-competition agreement. For example, California, a key state in the developing law on this subject because of its large number of small high-tech firms that rely heavily on intellectual property, takes a very strong position against *any* contractual terms that would restrain persons from practicing their trade. A handbook on employment and labor law states: ". . .except in limited circumstances involving partnerships or the sale of a business, agreements stating that employees will not compete with the employer for a certain periods of time or in a certain geographic area, no matter how reasonable they may seem, are unenforceable."[1]

Other jurisdictions subject non-competition limitations to a test of reasonableness with respect to restrictions on length of time and the geographic radius in which an employee may compete (e.g., three months and 150 kilometers). (See Exhibit 2.)

(2) *Definitions of protectable company property.* Where jurisdictions limit or refuse to allow enforcement of any restrictions on competition by former employees, companies can protect their own property; but legal descriptions of what constitutes company property is open to dispute. (See Exhibit 2, clauses 1, 2, and 3 for one company's effort to define "property" in this context.) The three elements of property that can by protected from use by others are:

- The information is not readily accessible to competitors;
- It was created by the company through the expenditure of substantial resources; and
- The company sought to keep the information confidential.[2]

Notwithstanding this formula, the handbook warns that "When it comes to such things as processes, formulas, techniques, and designs, what a company 'owns' is not clear."[3]

(3) *Obligation of employee to cooperate with company efforts to protect its property.* Requirements that the employee cooperate both during and subsequent to employment in company efforts to protect its intellectual property are fairly commonplace in employee agreements. (See Exhibit 2, C.1. and Exhibit 3, (2)) Both examples cited reimburse employees for expenses incurred in the process and in some instances "a reasonable per diem compensation" is paid, if the individual no longer works for the company (Exhibit 3).

Although employment agreements are widely used to safeguard company-owned intellectual property, they may be too blunt an instrument to resolve problems of increasing sophistication in the employer-employee relationship. In an article in *ethikos* magazine, Donn Parker, an expert on ethical conflicts and computer technology, writes that computer programmers often asked him what to do about project ideas that their companies have rejected. Are they now free to market the idea as their own?

[1] *Employment and Labor Law: An Employer's Handbook*, Broebeck, Phleger & Harrison Labor Litigation and Employment Group, 1986, pp. 12-13.
[2] Ibid
[3] Ibid

Parker notes that when he recommends they discuss their dilemma with the employer, many are fearful of being fired. He warns them that if there is any doubt as to the ownership of the idea, they must obtain informed consent from the company when they leave.[4]

Company managers do not always like to have hard and fast rules as to whether or not they will grant such consent, even when the company has a firm policy of non-disclosure agreements. There are two basic reasons why iron clad restrictions on employees are not necessarily desirable in high technology enterprises: (1) they can limit a company's ability to recruit the best people in situations that require tolerance for personal eccentricity and substantial freedom for individual initiative; and (2) they can foreclose a potentially profitable relationship between companies and highly motivated employees that want to strike out on their own. Control Data, for example, actually invested in Cray Research, Inc., a company founded by one of its former employees—and eventually sold its shares at a substantial profit.

Serious problems can also arise when a company acts to protect proprietary information because of circumstantial evidence. When IBM fired an employee because the company learned that she was dating a competitor's employee, she sued and a state court awarded her $300,000 in damages.[5]

These examples suggest that defining employer and employee rights with respect to the intellectual property produced by their joint efforts is a complex problem. The concept of what actually is company property can be an elusive one in this context, and even where there is agreement as to the company's legitimate interests, it is an open question as to how forcefully the company should assert them. The goals of increased profitability and fostering an innovative environment are not always consistent with vigorous enforcement.

[4] "'Intellectual property raises ethical questions in the computer business", *ethikos*, May/June 1988, pp. 15-16.

[5] "Privacy," *Business Week*, March 28, 1988, p. 64.

Exhibit 2: Xerox Canada, Inc.: Proprietary Information and Conflict of Interest Agreement

Proprietary Information and Conflict of Interest Agreement

In consideration of my employment by Xerox and of the compensation to be received therefore, I agree:

A. During the period of my employment, I will not independently engage in the same or similar line of business or research as that carried on by Xerox, or directly or indirectly, serve, advise or be employed by any individual, firm or corporation engaged in the same or similar line of business or research as that carried on by Xerox.

B. In order to protect Xerox proprietary, confidential and other business information:

1. If I have at any time within the last six months prior to termination been working in a sales position, I will not for a period of three months after termination of employment with Xerox, directly or indirectly, in any territory or market configuration to which I was assigned in those last six months of employment, engage in any sales or marketing activities relating to products or services competitive with those I was involved with for Xerox; or
2. If I do not fit within paragraph B.1, I agree, upon termination of my employment with Xerox, not to take employment or engage in any activity in a business or line of research mentioned above which is or is intended to be, directly or indirectly, competitive with those aspects of Xerox business with which I was concerned with in the last six months of employment with Xerox. This restriction shall apply for a period of three months after termination of employment and except if I have carried on a research activity in the Xerox Research Centre of Canada division, within a 150 kilometer radius of my place of employment with Xerox.

C. 1. During or subsequent to the period of my employment, I will communicate to Xerox promptly and fully all inventions, discoveries or improvements conceived or reduced to practice by me during the period of my employment (alone or jointly with others), and, except as provided in paragraph C.2, I will and hereby do assign to Xerox and/or its nominees all my right, title and interest in such inventions, discoveries, or improvements and all my right, title and interest in any patents or patent applications based thereon, and I will assist Xerox and/or its nominees (without charge but at no expense to me) at any time and in every proper way to obtain and maintain for its and/or their own benefit patents for all such inventions, discoveries or improvements anywhere in the world.

2. This agreement, however, does not obligate me to assign to Xerox any invention, discovery or improvement which, in the judgment of Xerox, reasonably exercised, does not relate to the business efforts or research and development efforts in which, during the period of my employment, Xerox actually is engaged or reasonably would be expected to become engaged.

D. Except as my duties during my employment with Xerox may require or as Xerox may otherwise consent in writing, I will not at any time disclose or use, either during or subsequent to my employment, any information, knowledge or data I receive or develop during my employment which is considered proprietary by Xerox or its affiliates or which relates to the trade secrets of Xerox or its affiliates with respect to any of Xerox' line of business or research. Without restricting the generality of the foregoing, this prohibition will include proprietary information and trade secrets as contained in formulas, business information processes, methods, machines, manufactures, compositions, inventions, discoveries or otherwise or which Xerox or its affiliates has received in confidence from others. Neither will I disclose to Xerox or induce Xerox to use any proprietary information or trade secrets of others.

E. As used herein, "Xerox" shall mean Xerox Canada Inc. and where appropriate Xerox Corporation (U.S.).

F. My obligations hereunder may not be changed or modified, released, discharged, abandoned or terminated in whole or in part except by an instrument in writing signed by an officer of Xerox.

G. This agreement shall enure to the benefit of and be binding upon my heirs, executors, personal representatives, successors and assigns. Delay in enforcing or in seeking legal recourse in respect of a breach of any of the obligations and covenants herein contained or contained in any Xerox policy and procedure will not itself operate or be construed as a waiver.

H. Except as set forth below, I have no agreements or arrangements of a business nature with, or obligations to, others in conflict with the foregoing and I do not own or have an interest in any patent application or unpatented invention.

I. 1. Except as set forth below, I am not a promoter, director, employee or officer of or consultant to a business organized for profit, nor will I become a promoter, director, employee or officer of or consultant to such a business while employed by Xerox without first obtaining the prior written approval of the President of Xerox Canada Inc. or his designee. Should I become a promoter, director, employee or officer of, or a consultant to a business organized for profit upon obtaining such prior written approval, I understand that I have a continuing obligation to advise the President or his designee at such time as any activity of either Xerox or such other business presents me with a conflict of interest as an employee of Xerox.

2. Should any matter or dealings in which I am now involved or hereafter become involved, on my own behalf or as an employee of Xerox, appear to present a possible conflict of interest under the Corporate policy then in effect, I will promptly disclose the facts to my supervisor so that a determination can be made as to whether a conflict of interest does exist. I will take whatever action is requested of me by Xerox to resolve any conflict which it finds to exist.

J. Any prior agreements between us relating to patents, trade secrets, proprietary information or conflict of interest with Xerox are hereby superseded. During my period of employment with Xerox I agree to abide by and be bound by all policies Xerox may from time to time issue or amend with respect thereto.

FOR QUEBEC ONLY

The Employee requests that this Agreement be drawn up in the English language, with which request Xerox agrees.

L'Employé demande que cette Convention soit rédigée en Anglais, demande a laquelle Xerox se complait.

EMPLOYEE NAME _____

EMPLOYEE SIGNATURE _____
(sign first name in full)

DATE _____ WITNESS _____
(to be written by employee)

List here any items which are exceptions under paragraphs (H) (agreements with or obligations to others and patents) and (I) (outside interests, possible conflict of interest).

Exhibit 3: Harris Corporation Employee Agreement

HARRIS

EMPLOYEE AGREEMENT

Division or Subsidiary

Employee's Name (please type or print)

As one of the considerations of my employment or the continuance of my employment by Harris Coporation or any division or subsidiary thereof (said corporation and any division or subsidiary thereof by which I may be employed from time to time being hereinafter called the Employer), I hereby agree with the Employer as follows:

(1) All inventions (whether patentable or unpatentable), improvements, discoveries and creations (including computer programs), and all copyrights therein, which during the period of my employment by the Employer I shall make or conceive alone or in conjunction with others (a) while engaged in any work for the Employer or with the use of facilities or materials of the Employer, or (b) which relate to any product, process, development or research work, or any other business of the Employer, and all records relating thereto (in written, or machine readable, or other form), shall be the property of the Employer, and I will promptly and fully disclose the same (in writing if requested) to the Employer, its proper executives and designated representatives, but to no others, and will deliver to the Employer all such records.

(2) Further, on request of the Employer at any time I will without charge but at the Employer's expense execute and deliver applications for patents, copyright registrations and mask works in the United States or in any foreign countries on such inventions, improvements, discoveries and creations, together with assignments to the Employer of my entire interest therein, and I will give to the Employer such reasonable assistance as may be requested of me in securing, enforcing and protecting said applications, patents, unpublished copyrights, copyright registrations, and mask works. Such services after termination of my employment are to be rendered by me on the basis that I will be paid a reasonable per diem compensation by the Employer for time devoted to such services and that the Employer will reimburse me for expenses necessarily incurred in connection therewith.

(3) I recognize that by virtue of my said employment I may acquire confidential information (in written, or machine readable, or other form) regarding the above matters and other affairs and business of the Employer and of others, including trade secrets, proprietary data, and computer programs, all of which I agree to hold in trust and confidence during and following my employment. At no time will I divulge such confidential information to anyone not entitled thereto nor use same for any purpose other than for the benefit of the Employer without the prior written consent of an authorized executive officer or employee of the Employer. Upon leaving such employment I will not take with me any drawings, blueprints, documents, computer programs, compilations of technical data, specifications or other records of any nature (in written, machine readable, or other form) belonging to the employer, or others, or any reproductions thereof.

(4) I further recognize that by virtue of my employment I may have access to computer programs and technology that have been provided or licensed to the Employer on a restricted basis. I agree to comply with such restrictions.

Witness

Employee's Signature

Date

INSTRUCTIONS

After reading this Agreement, the employee should sign two copies in the presence of a personnel representative who will sign both as a witness. When signed, one original copy is to be given to the employee and the other original copy is to be placed in the employee's personnel folder. If any questions are raised as to interpretation that cannot be answered by the personnel representative, they should be referred to the Corporate Patent Counsel before signing.

Chapter 5
Current Developments in Intellectual Property

The following legislation, and report were among the significant 1988 developments in intellectual property. Excerpts and brief descriptions appear below:

The U.S. Omnibus Trade and Competitiveness Act of 1988 contains two major provisions that address intellectual property issues. First, the Act improves the effectiveness of intellectual property protection under Section 337 of the Tariff Act of 1930 by making it easier for U.S. companies to seek relief for violations (Exhibit 4, Section VIII, A).

Specifically, the Act allows enforcement against infringing goods without the need to show injury, provided the vendor of the products was previously notified of the potential infringement; or, the importer had attempted to bring in the infringing goods more than once. (A practice known as "port shopping.")

Second, the Act improves procedures for investigating violations of intellectual property rights (Exhibit 4, Section VIII, B).

The *EC Green Paper on Copyright and the Challenge of Technology—Copyright Issues Requiring Immediate Action* issued June 7, 1988 by the Commission of the European Communities explores issues such as piracy, home-copying, distribution and rental rights, and data bases. The Green Paper's identification of potential copyright issues with respect to computer programs is a noteworthy feature of the report (Exhibit 5, p. 22). Specifically, the commission has asked for comments regarding the desirable scope (if any) of copyright protection for computer programs and related products, terms of protection, and appropriate procedures for enforcement of rights.

Exhibit 4: Summary of the Conference Agreement on H.R. 3, The Omnibus Trade and Competitiveness Act of 1988 (Sec. VIII: Intellectual Property Rights)

VIII. Intellectual Property Rights

A. Improves the effectiveness of intellectual property protection under section 337 of the Tariff Act of 1930:

1. *Eliminates the injury requirement in intellectual property rights cases.* (The domestic industry requirement is retained with an expanded definition).
2. *Shortens time period for issuance of temporary exclusion orders* to 90 days after initiation (extension of 60 days permitted for more complicated cases).
3. Clarifies that cease and desist orders may be issued *"in addition to or in lieu"* of exclusion orders and increases the maximum penalty for violations of such orders to $100,000 or twice the domestic value of the articles."
4. Provides for the ITC to use *default* procedures against persons who have been served with notice of proceedings and fail to appear to answer complaint in cases where petitioner seeks relief solely affecting that person. A general exclusion order may be issued by default if no respondent contests the investigation and violation is established.
5. In cases where a party previously found to be in violation petitions the ITC, the *burden of proof* that he is no longer in violation is on the *petitioner* and relief may be granted only on the basis of new evidence or on other grounds permissible under the Federal Rules of Civil Procedure.
6. Provides procedures for treating *confidential information* submitted in section 337 cases.
7. Explicitly authorizes the ITC to issue *consent orders* as the basis of settlement agreements.
8. Allows the ITC to prescribe sanctions for *abuse of discovery* and *abuse of process.*
9. Authorizes the ITC to order *seizure and forfeiture of goods* subject to an exclusion order if an attempt has been made to import the goods and the owner or importer has been notified that a further attempt to enter the goods would lead to seizure and forfeiture.

B. Creates a mechanism (relating to piracy and market access) to *improve international intellectual property rights protection* through identification by the USTR of foreign priority countries and self-initiation of section 301 investigations. Section 301 procedures apply generally in such investigations, except that a decision by USTR on whether or not to act is required within six months of initiation, with a possible three month extension in exceptional circumstances. If the USTR determines action is warranted under section 301, requires implementation within 30 days of an affirmative determination, or four months in exceptional circumstances.

Exhibit 5: European Community Green Paper on Copyright and the Challenge of Technology—Copyright Issues Requiring Immediate Action (Computer Programs: Summary and Conclusion)

5.7. Summary

5.7.1. As already mentioned in paragraph 5.4.1., the Commission has decided within the framework of the completion of the internal market, to examine as a matter of priority the issues relating to the legal protection of computer programs and subsequently to submit a proposal for a Council directive on the legal protection of computer programs. For this purpose, certain preliminary consultations have already been concluded, which have confirmed the desirability of an early initiative in this field. Further, all information received and experience gained from participation in the discussion at the international level on the appropriate protection system indicates that the Community approach should be within the framework of copyright and related rights.

5.8. Conclusion

5.8.1. The Commission intends to submit to the Council as a matter of urgency a proposal for a directive based on Article 100 A EC for the protection of computer programs.

5.8.2. As regards the contents of the directive, and especially in the light of Community standardization policy, the Commission would like to receive comments on whether:

a) the protection should apply to computer programs fixed in any form;
b) programs should be protected where they are original in the sense that they are the result of their creator's own intellectual effort and are not commonplace in the software industry;
c) access protocols, interfaces and methods essential for their realization should be specifically excluded from protection;
d) rights to authorize restricted acts should include a broad use right either formulated as such or as a consequence of rights to authorize reproduction, rental, adaptation and translation; for these latter rights, specific provision should be made in any event;

e) the adaptation of a program by a legitimate user exclusively for his own purposes and within the basic scope of a licence should be permitted;

f) the reproduction of a computer program for private purposes should not be permitted without authorization of the right holder whereas the production of back-up copies by a legitimate user should be permitted without authorization;

g) the term of protection should start with the creation of the program and last for an appropriate number of years to be fixed by the directive; a choice will have to be made between a period of 50 years and one in the region of 20 or 25 years;

h) the issue of authorship of computer programs, including authorship in respect of computer-generated programs, should be left largely to Member States but with national laws having to establish who, in the absence of contractual arrangements to the contrary, is to be considered the author;

i) protection would be available for creators who are nationals of States adhering to the Berne Convention or the Universal Copyright Convention or enterprises of such countries or possibly to all natural and legal persons irrespective of origin or domicile;

j) in infringement cases the onus of proof in respect of copying should be shifted to the alleged infringer once the plaintiff makes available to the Court the different versions of his program to which he has access and shows similarity and that the alleged infringer has had access to the right holder's program.

5.9. Timetable for submissions

5.9.1. Given the need to begin the legislative process as soon as possible, the Commission will be seeking the views of interested parties on these matters as a matter of urgency. Comments on the above mentioned suggestions should be submitted to the Commission not later than 1 September 1988.

Appendix

Characteristics of Protective Mechanisms (U.S.A.)

	Copyright	Patent	Trade Secrecy
General Considerations			
National Uniformity	yes	yes	no
Protection Effective Upon	creation of work	successful prosecution of application	entrance into contractual relationship
Cost of Obtaining Protection	nil	moderate	moderate
Term of Protection	life plus 50 years or 75 years	17 years	possibility of both perpetual protection and termination at any time
Cost of Maintaining Protection	nil	nil	significant
Cost of Enforcing Rights Against Violators	moderate	moderate	higher
Availability of:			
Statutory Damages	yes	no	no
Attorneys' Fees from Infringers	yes	yes	no
Protection Lost by	gross neglect	unsuccessful litigation	disclosure
Software Considerations			
Consistency with other Copyright Areas	yes	no	no
Availability for Some Programs	yes	unclear	yes
Universal Availability	yes	no	no
"Process" Protectable	no	yes	yes
Suited to Mass Distribution	yes	yes	no

Source: CONTU, *Final Report*, p. 19 (notes omitted), *Journal of the American Society for Information Science*, January 1989, p. 13.

International Legal Protection for Software

How to use this chart:

This chart can be used to determine if subject matter protection is currently available in a particular country for either a U.S. or foreign party's software work. The entry under **Copyright** or **Trademark** indicates whether subject matter protection is available for software under the national copyright or trademark laws of the specified country. If so, to determine if protection is available for a U.S. work in that country, the second step is to look at the row entry under **Convention Memberships** to see if there is a mutual membership or a bilateral agreement between the United States and that country. If there is, subject matter protection is probably available. The same approach is used to determine if protection is available for a foreign party's software work in another foreign country (except that relevant bilateral agreements are not identified). For example, a Japanese author would look at the Convention Membership entries to determine if Japan and the specified country have a mutual convention membership.

Definitions of terms used in this chart:

"Yes" - subject matter protection for software is available, although this survey has made no determination regarding the practicality of enforcement.

"Probably" - significant case law precedent supports subject matter protection.

"Maybe" - subject matter protection may exist based on, for example, a favorable lower court opinion, view of commentators, or the ability to register software in the country's copyright office.

"No" - no substantial indication of subject matter protection for software.

"Unknown" - no information identified.

Convention Memberships: "B" - Berne Convention "U" - Universal Copyright Convention "P" - Paris Convention

Nation	Copyright	Trademark	Convention Memberships
Argentina	Probably (1)	Yes	B,U,P
Australia	Yes*	Yes	B,U,P
Austria	Maybe (2)	Yes	B,U,P
Belgium	Maybe	Yes	B,U,P
Brazil	Yes* (3)	Yes	B,U,P
Brunei	Unknown	Yes (4)	None
Bulgaria	Yes*	Yes	B,U,P
Canada	Yes*	Yes	B,U,P
Chile	Maybe	Yes	B,U
China (PRC)	No (5)	Yes (6)	P
Colombia	Maybe	Yes	B,U
Costa Rica	Maybe	Yes	B,U
Czechoslovakia	No	Yes	B,U,P
Denmark	Maybe	Yes	B,U,P
Dominican Republic	Yes*	Yes	U,P
Ecuador	Maybe	Yes	U
Egypt	Unknown	Yes	B,P
Finland	Maybe (1)	Yes	B,U,P
France	Yes*	Yes	B,U,P
Germany (Dem. Rep.)	No	Yes	B,U,P
Germany (Fed. Rep.)	Yes* (7)	Yes (8)	B,U,P
Greece	Unknown	Yes	B,U,P
Guatemala	Unknown	Yes	U
Hong Kong	Yes*	Yes	U,P (as extended pursuant to the U.K.'s memberships)
Hungary	Yes*	Yes	B,U,P
India	Yes*	Yes	B,U
Indonesia	Yes*	Yes	P
Ireland	Maybe (1)	Yes	B,U,P
Israel	Yes*	Yes	B,U,P
Italy	Probably (9)	Yes	B,U,P
Japan	Yes* (10)	Yes	B,U,P
Luxembourg	Maybe	Yes	B,U,P

Nation	Copyright	Trademark	Convention Memberships
Macau	No	Yes	None
Malaysia	Yes*	Yes	P
Mexico	Probably* (1) (11)	Yes	B,U,P
Netherlands	Probably (1) (12)	Yes	B,U,P
New Zealand	Maybe	Yes	B,U,P
Nigeria	Unknown	Yes	U,P
Norway	Probably (1)	Yes	B,U,P
Oman	No	Unknown	None
Panama	Unknown	Yes	U
Pakistan	Unknown	Yes	B,U
Peru	Maybe	Yes	B,U
Philippines	Yes*	Yes	B,P
Poland	Maybe (1)	Yes	B,U,P
Portugal	Yes*	Yes	B,U,P
Romania	Maybe	Yes	B,P
Saudi Arabia	No	Yes	None
Singapore	Yes*	Yes	Bilateral Copyright
South Africa	Probably (13)	Yes	B,P, Bilateral Copyright
South Korea	Yes* (14)	Yes	U,P
Spain	Yes*	Yes	B,U,P
Sweden	Probably (1) (15)	Yes	B,U,P
Switzerland	No (16)	Yes	B,U,P
Taiwan (ROC)	Yes*	Yes	Bilateral Copyright
Thailand	Maybe (1)	Yes	B
Turkey	Maybe*	Yes	B,P
USSR	No (1)	Yes	U,P
United Arab Emirates	No	No	None
United Kingdom	Yes*	Yes	B,U,P
United States	Yes*	Yes	U,P,B (3/1/89)
Uruguay	Maybe	Yes	B,P
Venezuela	Maybe	Yes	B,U
Yugoslavia	No	Yes	B,U,P

* Special legislation passed or decree issued.

(1) Legislation or decree proposed.

(2) On July 31, 1985, Vienna's trade court held that computer source code could be a literary work under the Austrian Copyright Act. Copyright protection may not be available when the program is merely a scientific result defined as an algorithm. (Source: Computer Law Association International Update, April 1987).

(3) Brazilian Law No. 7646 of December 18, 1987, provides for intellectual property protection for computer programs and for commercialization of them in Brazil. Under the implementing regulations, foreign software is provided copyright protection for twenty-five years from its introduction in its country of origin, but may not be commercialized in Brazil without being catalogued at the Secretariat for Informatics (SEI). Computer programs may be catalogued provided there is no Brazilian "functional equivalent." Cataloguing is not required for: (a) single copies imported by the end user for its exclusive use; (b) copies imported by the end user for its exclusive use which are associated with machines, equipment and devices based on digital techniques; and (c) programs resident and integrated in machines, equipment and devices based on digital techniques, provided the programs are not commercialized separately from the products in which they are contained. The regulations also provide for approval of Brazilian distributor contracts with foreign software owners, technology transfers and related contracts. As of October 16, 1988, ninety-two U.S. software cataloguing requests had been approved under the new regulations. In addition, there were eighteen distributor approvals and thirteen technology transfer approvals. Only one U.S. cataloguing request has been rejected by SEI.

(4) Unauthorized production of trademarked goods in Brunei has become a significant problem.

(5) The current draft copyright law does not include protection for computer programs. Since computer programs are protected mainly through contract, there is no right of action against third parties. There is unlikely to be any form of copyright-like protection for software in the near future in the PRC.

(6) Allows trademark registration only for the data carrying media (not for the programs).

(7) On June 25, 1985, the German Copyright Act was amended to expressly include computer programs. However, the German Federal Supreme Court had held on May 9, 1985, in *Inkasso* that copyright protection may only be granted to computer programs "which assume a clearly outstanding creativity in selection, collection, organization and division of the material and directions compared to general and average ability." This decision has led commentators to conclude that the majority of computer programs are not protected.

(8) A decision of the Federal Patent Court in the Federal Republic of Germany has been construed to deny trademark protection to computer game titles.

(9) *S.I.A.E. v. Domenico Pompa*, Supreme Court, November 24, 1986 (software is protected by civil and criminal copyright laws). *See also* cases cited in Casati & Pavesio, *Legal Protection of Computer Software in Italy*, COMPUTER LAWYER, Vol. 5, No. 4, at page 17 (April 1988).

(10) No copyright protection exists in Japan for syntax, algorithms, or programming languages. In *Microsoft v. Shuuwa Trading KK*, Tokyo District Court, January 30, 1987, the court held that the implementation of a programming language in a BASIC interpreter is protected by copyright law.

(11) A 1984 ministerial decree expressly protects software under Mexico's copyright law.

(12) *Atari v. Philips*, Amsterdam Court of Appeal, March 31, 1983, Auteursrecht/AMR 56 (1983) (software underlying video game, as well as sequence and visualization of screen images, could be eligible for copyright).

(13) *Northern Office Computers (Pty) Ltd. et. al. v. Rosenstein*, 1981 (4) SA 123(c), 14 IIC 560 (1982) FSR 124 (Cape Provincial Division of South Africa) (because preparation of computer program involved considerable effort and skill, program was protected by copyright).

(14) South Korean copyright law expressly covers published software created after July 1, 1987, including recognizing a private right of action. South Korea's accession to the Universal Copyright Convention, effective October 1, 1987, means that its copyright law can apply to U.S. software published after that date.

(15) *Sweden v. Broman*, Court of Appeals, Case No. B563/86, November 19, 1987 (in criminal prosecution for infringement, court held that computer programs are works within the meaning of Sweden's copyright law upon the condition that they are products of a "non-trifling" intellectual creative activity).

(16) A Swiss commission has proposed a special form of legal protection for software, which would be similar to copyright but specifically designed for software. If enacted, this statute would apparently be within the scope of the Berne Convention.

Sources other than direct authority: Computer Law Association's *International Update*; Warner & Stackpole *Computer Law Newsletter*; Keplinger, *International Protection for Computer Programs*, 1988 (Mr. Keplinger is with the Office of Legislation and International Affairs, U.S. Patent and Trademark Office); telexes and telephone conversations with counsel in various countries; unclassified telexes from U.S. consulates in various countries.

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